

- L2 ANSWER 2 OF 2 JAPIO COPYRIGHT 2001 JPO
- AN 1990-036734 JAPIO
- TI VOLTAGE CONTROLLER FOR VEHICLE GENERATOR
- IN MARUYAMA TOSHINORI; MATSUHASHI TOSHIAKI
- PA NIPPON DENSO CO LTD, JP (CO 000426
- PI JP 02036734 A 19900206 Heisei
- AI JP1988-186558 (JP63186558 Heisei) 19880726
- SO PATENT ABSTRACTS OF JAPAN, Unexamined Applications, Section: E, Sect. No. 918, Vol. 14, No. 19, P. 21 (19900418)
- IC ICM (5) H02J007-24 ICS (5) H02P009-30
- PURPOSE: To suppress the battery dark current when there is no leak current by operating a switching means for connecting a leak compensation resistor based on the output from a comparator for comparing the input terminal voltage with a constant voltage.

  CONSTITUTION: When an ignition switch 3 is not leaking current, voltage at the input terminal L is lower than a predetermined level and a switching means 14 does not function and thereby the current of a battery 5 is not consumed uselessly. When current leaks through the ignition switch 3, voltage at the input terminal L exceeds over the predetermined level. Consequently, a comparison means 12 produces an output signal and operates the switching means 14 to connect a leak compensation resistor 143 between the input terminal L and the earth. As a result, the leak current is absorbed and voltage rise at the input terminal L is prevented.





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L2 ANSWER 1 OF 2 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1990-081250 [11] WPIX

TI Voltage controller for car power generator - has switch for connecting current by-pass resistor between battery and ground NoAbstract Dwg 1/7.

DC X13 X22

PA (NPDE) NIPPONDENSO CO LTD

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PI JP 02036734 A 19900206 (199011) \* 8p

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PRAI JP 1988-186558 19880726

IC H02J007-24; H02P009-30

FS EPI

FA NOAB; GI

MC EPI: X13-G02A; X22-F02

L1ANSWER 1 OF 1 INPADOC COPYRIGHT 2001 EPO

PATENT FAMILY INFORMATION 56791621 INPADOC

PRIORITY (1): JP 1988-186558 A 19880726

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	Search Text	Married
1	(("4374380") or ("4284936") or ("4973896") or ("4354182") or ("5015918") or ("5936317") or ("5343844") or ("3914092") or ("5923095") or ("6054818") or ("6037726") or ("4247813") or ("5384516") or ("5412378") or ("4500977") or ("6140915") or ("5092602") or ("5486002") or ("5290037") or ("5563479") or ("5051666") or ("5581172") or ("5872721") or ("3755709") or ("4224562") or ("5778017") or ("5636233") or ("5778017") or ("5686819") or ("5606226") or ("5903104") or ("6166525") or ("4280161") or ("6166525") or ("4280161") or ("5705807") or ("6137237") or ("5587865") or ("5635723") or ("5619108") or ("4665397") or ("5642626") or ("4573046") or ("5642626") or ("4398128")).PN.	
2	("322/28").CCLS.	
3	(("322/28").CCLS.) and ("lighemitting diode" or "LED")	t
4	(("322/28").CCLS.) and (light near emitting near diode)	
5	(("322/28").CCLS.) and "LED"	
6	(("322/28").CCLS.) and "lamp"	
[7]	voltage near regulator and ("light emitting diode" or "LED")	
8	voltage near regulator and ("light emitting diode")	:
1 1	(voltage near regulator and ("light emitting diode")) and "switch"	
10	322/\$.ccls. and voltage near regulator and "light emitting diode"	
11	JP-2707616-\$.did.	
12	JP-02707616-\$.did.	

	Search Text
13	JP-20707616-\$.did.
14	JP-02707616-\$.did.
15	JP-02036734-\$.did.
16	(("5491400") or ("5581172") or ("5923095") or ("5932993") or ("5900721") or ("6005372") or ("6204643")).PN.
17	("4570199").PN.

CLIPPEDIMAGE= JP402036734A

PAT-NO: JP402036734A
DOCUMENT-IDENTIFIER: JP 02036734 A

TITLE: VOLTAGE CONTROLLER FOR VEHICLE GENERATOR

PUBN-DATE: February 6, 1990

INVENTOR-INFORMATION: NAME MARUYAMA, TOSHINORI MATSUHASHI, TOSHIAKI

ASSIGNEE-INFORMATION: NIPPON DENSO CO LTD

COUNTRY N/A

APPL-NO: JP63186558 APPL-DATE: July 26, 1988

INT-CL (IPC): H02J007/24; H02P009/30

US-CL-CURRENT: 307/107

## ABSTRACT:

PURPOSE: To suppress the battery dark current when there is no leak current by operating a switching means for connecting a leak compensation resistor based on the output from a comparator for comparing the input terminal voltage with a constant voltage.

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